(11)

Furness Shipbuilding Co. Ltd.

Yard Nos. 345-6.

Profile and Decks (as built).

S.S. Empire Beaumont
MDR. RPT. No. 17278/9

RETAIN

W 1173-0073

S.S. EMPIRE BEAUMONT.

SHIP Nº 345[redacted]

PROFILE & DECK PLANS.

SCALE :- 1/8" = ONE FOOT

DIMENSIONS - 425·0' B.P. ON L.W.L. × 56·0" M^LD × 36·9" NORMAL SHELTER / 37·8" FLAT SHEER TO UPPER DECK

TO CLASS 100 A1 WITH FREEBOARD AT LLOYDS SPECIAL SURVEY

SHEER FORWARD	81
SHEER AFT	31
ROUND OF BEAM	14
NO TUMBLE HOME	

THE SCANTLINGS OF BULB ANGLE AND CHANNEL SECTIONS GIVEN ON THIS PLAN ARE "N.B.S."

THE SCANTLINGS ARE SUITABLE FOR LOAD DRAFT OF 26·9" EXTREME

FORECASTLE DECK
PEAK FLOORS ·42
1R LAP ON FRAME
24" FR SPACING
PEAK FRAMES
8" × 3½" × 35 B.A. TO UPPER & FC'LE DECKS
ALTERNATELY - INTERMEDIATE FRAMES IN FC'LE
5 × 3 × 5/16 O.A. SCARPHED OR BRACKETED
PARALLEL DECK
UPPER DECK
CARGO HATCH
SHIFT OF BUTTS INDICATED IS TYPICAL ONLY
PARALLEL DECK
SECOND DECK
ENGINE CASING
BOILER CASING
PARALLEL BODY

1038 1W MR LANAGHAN 31·7·41
3146 1W 26·6·41
3186 3W CURNOCK WITHIE
3184 3W ARMSTRONG WHITWORTH

x29653

25·6·42

W173-0073

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Furness Shipbuilding Co. Ltd.

Yard Nos. 345-6.

Midship Section (as built)

RETAIN

S.S. Empire Beaumont
MDB. RPT. No. 17278/9

W1173-0072

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Lloyd's Register
Foundation

S.S. EMPIRE BEAUMONT.

SHIPS Nos 345[redacted]

MIDSHIP SECTION.

SCALE:- 1/2" = 1 FOOT.

TO CLASS 100 A.1 WITH FREEBOARD AT LLOYD'S SPECIAL SURVEY.

DIMENSIONS:- 425'-0" B.P. ON L.W.L x 56'-0" MLD 56'-3" EXT. x 27'-9" NORMAL SHEER / 28'-8" FLAT SHEER MLD. TO 2ND DECK. x

36'-9" NORMAL SHEER / 37'-8" FLAT SHEER MLD. TO UPPER DECK.

THE SCANTLINGS ARE SUITABLE FOR A DRAUGHT OF 26'-9" EXTREME

LLOYDS NUMERALS TO NORMAL SHEER.

FIRST LONGITUDINAL NUMBER L x D	= 425'-0" x 35·75'	= 15193·75
SECOND LONGITUDINAL NUMBER L x (B+D)	= 425'-0" x (56'-0" + 35·75)	= 38993·75
L/D TO UPPER DECK	= 425'-0" ÷ 37'-8"	= 11·27
D MOULDED DEPTH	= 27·75' + 8'-0"	= 35·75
d = 36·75 – (9'-0" + 3'-7¼) – CREDIT FOR DEEPER KNEES & FRAME BRACKET		= 23·3

EQUIPMENT NUMBER.

SECOND LONGITUDINAL NUMBER	= 425'-0" x (56'-0" + 36·75)	= 39418·75
FORECASTLE	= 40'-0" x 7·5' x 3/4	= 225·00
MIDSHIP ACCOMMODATION & CASING	= 72·25 x 8'-0" x 1/2	= 289·00
SALOON ACCOMMODATION	= 30'·0" x 8'-0" x 1/2	= 120·00
EQUIPMENT NUMBER		= 40052·75

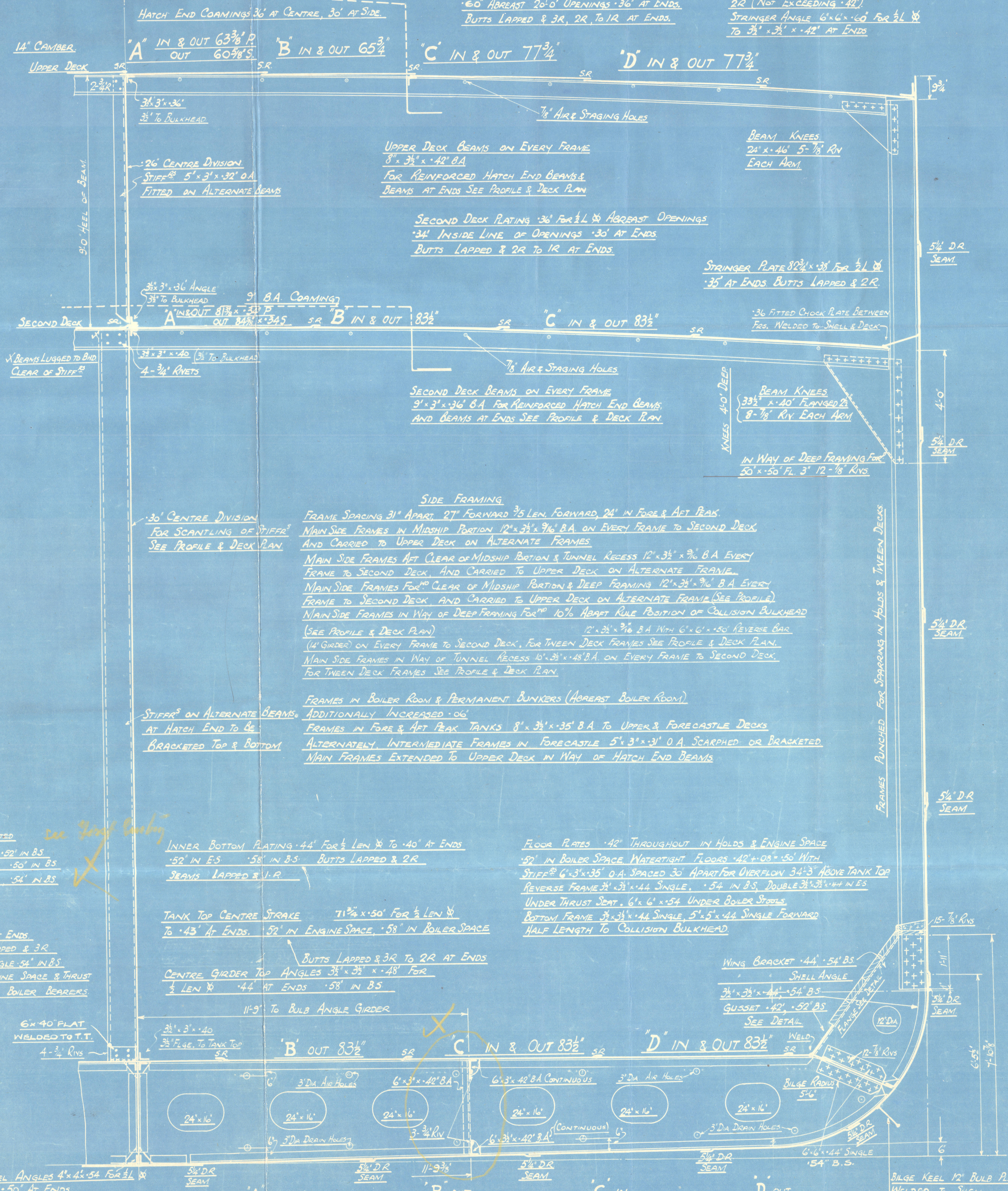
EQUIPMENT

2 BOWER ANCHORS 68 CWTS. EACH STOCKLESS
1 STREAM ANCHOR 19 CWTS. EX-STOCK
225 FATHOMS 2 5/16" STUD CHAIN CABLE 600 CWTS.
90 FATHOMS 5" FLEXIBLE STEEL WIRE 6 x 12
120 FATHOMS 4 3/4" SPECIAL FLEXIBLE STEEL WIRE 6 x 24
2 HAWSERS 90 FATHOMS 2 3/4" FLEXIBLE STEEL WIRE 6 x 12
2 WARPS 90 FATHOMS 2 1/2" FLEXIBLE STEEL WIRE 6 x 12

RIVETING NOTE:-

RIVETS IN FRAMES TO FLOORS AND CROSS TIE PLATES IN AFT PEAK SPACED 5 DIAS APART CR TO CR
RIVETS IN FRAMES TO SHELL AT FLAT OF DOUBLE BOTTOM FORD HALF LENGTH FORD SPACED 5½ DIAS (TWO COMPLETE ROWS)
RIVETS IN FRAMES TO FLOORS AT FLAT OF DOUBLE BOTTOM FORD HALF LENGTH FORD SPACED 6¼ DIAS (TWO COMPLETE ROWS).
RIVETS IN SIDE FRAMES TO SHELL SPACED 6½ DIAS APART. 5½ DIAS APART IN WAY OF FORE & AFT PEAK TANKS AND DEEP FRAMING FORD
RIVETS IN BOTTOM FRAMES TO SHELL AFT HALF LENGTH FORD SPACED 7 DIAS APART CR TO CR
RIVETS IN 3R BUTTS OF OUTSIDE PLATING AND OF DECK STRINGER PLATES SPACED 3½ DIAS APART CR TO CR
RIVETS IN 4R " " " " " " " " " 4 " " " "
RIVETS IN SEAMS OF SHELL PLATING, DECK PLATING AND INNER BOTTOM PLATING AS PER TABLE 40
RIVETS IN BUTTS OF DECK PLATING, INNER BOTTOM & MARGIN PLATING SPACED 4 DIAS APART CR TO CR
RIVETS IN SEAMS & BUTTS OF BULKHEAD & TUNNEL PLATING, MARGIN ANGLES AND WEATHER DECK STRINGER ANGLES AND BULKHEAD FRAME TO BULKHEAD SPACED 4½ DIAS APART CR TO CR
RIVETS IN FLAT KEEL ANGLES, VERTICAL ANGLES CONNECTING FLOORS TO CENTRE GIRDER, AND SHELL FLANGE OF WATERTIGHT BULKHEAD FRAME SPACED 5 DIAS APART CR TO CR
RIVETS IN FRAMES TO FLOORS AFT HALF LENGTH FORD REVERSE FRAMES TO FLOORS AND INNER BOTTOM PLATING VERTICAL ANGLES TO FLOORS AND SIDE GIRDERS, IN BULKHEAD STIFFENERS (EXCEPT PEAK BULKHEADS) AND IN DECK PLATING TO BEAMS ON EVERY FRAME SPACED 7 DIAS APART CR TO CR
RIVETS IN CENTRE GIRDER TOP ANGLES SPACED 7 DIAS APART CR TO CR NON WATERTIGHT
RIVETS IN " " " " " 5 " " " " WATERTIGHT.

THE SCANTLINGS OF ANGLE & BULB ANGLE SECTIONS GIVEN ON THIS PLAN ARE N.B.S.



HATCH END COAMINGS ·36" AT CENTRE, ·30" AT SIDE.
14" CAMBER.
UPPER DECK
"A" IN & OUT 63 3/8" P. OUT 60 5/8" S.
"B" IN & OUT 65 3/4"
"C" IN & OUT 77 3/4"
"D" IN & OUT 77 3/4"
S.R.
2-3/4 R
3½" x 3" x ·36"
3½" TO BULKHEAD.
7/8" AIR & STAGING HOLES
9 3/4"
9'-0" HEEL OF BEAM.
·26" CENTRE DIVISION
STIFFRS 5" x 3" x ·32" O.A.
FITTED ON ALTERNATE BEAMS
BEAM KNEES
24" x ·46" 5-7/8" RIV
EACH ARM.
5¼" D.R. SEAM.
3½" x 3" x ·36" ANGLE
3½" TO BULKHEAD.
9" B.A. COAMING
SECOND DECK
"A" IN & OUT 81 3/8" x ·34" P OUT 84 5/8" x ·34 S
"B" IN & OUT 83½"
"C" IN & OUT 83½"
x BEAMS LUGGED TO BHD CLEAR OF STIFFRS
3½" x 3" x ·40 (3½" TO BULKHEAD
4-3/4" RIVETS
7/8" AIR & STAGING HOLES.
·36 FITTED CHOCK PLATE BETWEEN FRS. WELDED TO SHELL & DECK
KNEES 4'-0" DEEP
BEAM KNEES
33½" x ·40" FLANGED 2½"
8-7/8" RIV. EACH ARM
4'-0"
IN WAY OF DEEP FRAMING FORD
50" x ·50" FL. 3" 12-7/8" RIVS.
5¼" D.R. SEAM
·30" CENTRE DIVISION
FOR SCANTLING OF STIFFRS
SEE PROFILE & DECK PLAN.
STIFFRS ON ALTERNATE BEAMS
AT HATCH END TO BE
BRACKETED TOP & BOTTOM
FRAMES PUNCHED FOR SPARRING IN HOLDS & TWEEN DECKS
6" x ·40" FLAT WELDED TO T.T.
4-3/4" RIVS
3½" x 3" x ·40
3½" FLGE. TO TANK TOP
11'-9" TO BULB ANGLE GIRDER
"B" OUT 83½"
"C" IN & OUT 83½"
"D" IN & OUT 83½"
3" DIA AIR HOLES
6"
6" x 3" x ·42" B.A.
6" x 3" x 42" B.A. CONTINUOUS
24" x 16"
3-3/4" RIV
3" DIA DRAIN HOLES
6" x 3½" x ·42" B.A. (CONTINUOUS)
11'-9 3/8"
5¼" D.R. SEAM
WELD
12-7/8" RIVS
15-7/8" RIVS
BILGE RADIUS 5'-6"
12" DIA
FLANGE SEE DETAIL
1'-11"
6'-5½"
7'-10 7/8"
6"
6" x 6" x ·44" SINGLE
·54" B.S.
WING BRACKET ·44", ·54" B.S.
" " SHELL ANGLE
3½" x 3½" x ·44", ·54" B.S.
GUSSET ·42", ·52" BS
SEE DETAIL
See [illegible]

UPPER DECK PLATING INSIDE OPENINGS ·40" FOR ½L ⊗ TO ·36" AT ENDS, BUTTS LAPPED & 1R. ·60" ABREAST 20'-0" OPENINGS ·36" AT ENDS. BUTTS LAPPED & 3R, 2R, TO 1R AT ENDS.

STRINGER PLATE 65 5/8" x ·65" FOR ½L ⊗ ·42" AT ENDS. BUTTS LAPPED & 4R TO 3R 2R (NOT EXCEEDING ·42"). STRINGER ANGLE 6" x 6" x ·60" FOR ½L ⊗ TO 3½" x 3½" x ·42" AT ENDS

UPPER DECK BEAMS ON EVERY FRAME 8" x 3½" x ·42" B.A. FOR REINFORCED HATCH END BEAMS & BEAMS AT ENDS SEE PROFILE & DECK PLAN

SECOND DECK PLATING ·36" FOR ½L ⊗ ABREAST OPENINGS ·34" INSIDE LINE OF OPENINGS ·30" AT ENDS. BUTTS LAPPED & 2R TO 1R AT ENDS.

STRINGER PLATE 82 3/4" x ·38" FOR ½L ⊗ ·35" AT ENDS. BUTTS LAPPED & 2R.

SECOND DECK BEAMS ON EVERY FRAME 9" x 3" x ·36" B.A. FOR REINFORCED HATCH END BEAMS, AND BEAMS AT ENDS SEE PROFILE & DECK PLAN.

SIDE FRAMING

FRAME SPACING 31" APART, 27" FORWARD 3/5 LEN. FORWARD, 24" IN FORE & AFT PEAK.
MAIN SIDE FRAMES IN MIDSHIP PORTION 12" x 3½" x 9/16" B.A. ON EVERY FRAME TO SECOND DECK, AND CARRIED TO UPPER DECK ON ALTERNATE FRAMES.
MAIN SIDE FRAMES AFT CLEAR OF MIDSHIP PORTION & TUNNEL RECESS 12" x 3½" x 9/16" B.A EVERY FRAME TO SECOND DECK, AND CARRIED TO UPPER DECK ON ALTERNATE FRAME.
MAIN SIDE FRAMES FORD CLEAR OF MIDSHIP PORTION & DEEP FRAMING 12" x 3½" x 9/16" B.A. EVERY FRAME TO SECOND DECK, AND CARRIED TO UPPER DECK ON ALTERNATE FRAME (SEE PROFILE)
MAIN SIDE FRAMES IN WAY OF DEEP FRAMING FORD 10% ABAFT RULE POSITION OF COLLISION BULKHEAD (SEE PROFILE & DECK PLAN) 12" x 3½" x 9/16 B.A WITH 6" x 6" x ·50" REVERSE BAR (14" GIRDER) ON EVERY FRAME TO SECOND DECK. FOR TWEEN DECK FRAMES SEE PROFILE & DECK PLAN.
MAIN SIDE FRAMES IN WAY OF TUNNEL RECESS 10" x 3½" x ·48" B.A. ON EVERY FRAME TO SECOND DECK. FOR TWEEN DECK FRAMES SEE PROFILE & DECK PLAN.

FRAMES IN BOILER ROOM & PERMANENT BUNKERS (ABREAST BOILER ROOM) ADDITIONALLY INCREASED ·06"
FRAMES IN FORE & AFT PEAK TANKS 8" x 3½" x ·35" B.A. TO UPPER & FORECASTLE DECKS ALTERNATELY. INTERMEDIATE FRAMES IN FORECASTLE 5" x 3" x ·31" O.A. SCARPHED OR BRACKETED.
MAIN FRAMES EXTENDED TO UPPER DECK IN WAY OF HATCH END BEAMS.

SIDE GIRDERS WHERE PLATE FITTED
PLATE ·38" IN HOLDS, ·42" IN E.S. & ·52" IN B.S.
VERTICAL ANGLES 3½" x 3½" x ·40", ·50" IN B.S.
TOP ANGLES 3" x 3" x ·44" ·54" IN B.S.
BOTTOM ANGLES 3½" x 3½" x ·44"

CENTRE GIRDER.
43¼" x ·54" FOR ½ LEN ⊗ ·46" AT ENDS.
·62" IN BOILER SPACE, BUTTS LAPPED & 3R.
VERTICAL ANGLES 3½" x 3½" x ·44" SINGLE ·54" IN B.S.
5" x 5" x ·44" SINGLE UNDER ENGINE SPACE & THRUST SEATING 5" x 5" x ·54" UNDER BOILER BEARERS.

INNER BOTTOM PLATING ·44" FOR ½ LEN ⊗ TO ·40" AT ENDS ·52" IN E.S. ·58" IN B.S. BUTTS LAPPED & 2R SEAMS LAPPED & 1·R.

TANK TOP CENTRE STRAKE 71¾ x ·50" FOR ½ LEN ⊗ TO ·43" AT ENDS. ·52" IN ENGINE SPACE, ·58" IN BOILER SPACE
BUTTS LAPPED & 3R TO 2R AT ENDS

CENTRE GIRDER TOP ANGLES 3½" x 3½" x ·48" FOR ½ LEN ⊗ ·44" AT ENDS ·58" IN B.S.

FLOOR PLATES ·42" THROUGHOUT IN HOLDS & ENGINE SPACE ·52" IN BOILER SPACE. WATERTIGHT FLOORS ·42" + ·08 = ·50" WITH STIFFRS 6" x 3" x ·35" O.A. SPACED 30" APART FOR OVERFLOW 34'-3" ABOVE TANK TOP. REVERSE FRAME 3½" x 3½" x ·44 SINGLE. ·54 IN B.S. DOUBLE 3½" x 3½" x ·44 IN E.S UNDER THRUST SEAT. 6" x 6" x ·54 UNDER BOILER STOOLS. BOTTOM FRAME 3½" x 3½" x ·44 SINGLE, 5" x 5" x ·44 SINGLE FORWARD HALF LENGTH TO COLLISION BULKHEAD.

KEEL ANGLES 4" x 4" x ·54 FOR ½L ⊗ TO ·50" AT ENDS

BILGE KEEL 12" BULB PLATE WELDED TO SHELL FOR ABOUT 110'-0" AMIDSHIPS

KEEL OUT.
54" x ·80" FOR 3/5 L ⊗ TO ·70" AT ENDS
4R OVERLAPS

"A" IN
77½" x ·63" FOR ½L ⊗
TO ·50" AT ENDS
BUTTS LAPPED & 4R TO 3R

"B" OUT
77½" x ·63" FOR ½L ⊗
TO ·50" AT ENDS.
BUTTS LAPPED & 4R TO 3R.

"C" IN
77½" x ·63" FOR ½L ⊗
TO ·50" AT ENDS
BUTTS LAPPED 4R TO 3R.

"D" OUT
70½" x ·65" FOR ½L ⊗
TO ·50" AT ENDS
INSIDE STRAPS 4R
LAPS 4R TO 3R.

THICKNESS OF BOTTOM SHELL PLATING FROM FORWARD HALF LENGTH FORWARD TO RULE POSITION OF COLLISION BULKHEAD ·63" + 10% = ·70"

FORECASTLE.
STRINGER PLATE 35" x ·36" BUTTS 1R.
STRINGER ANGLE 3½" x 3½" x ·36"
DECK PLATING ·32" UNSHEATHED
BUTTS LAPPED 1R
SIDE PLATING ·40" SEAMS & BUTTS 1R.
BEAMS ON EVERY FRAME AS PER PROFILE & DECK PLAN.

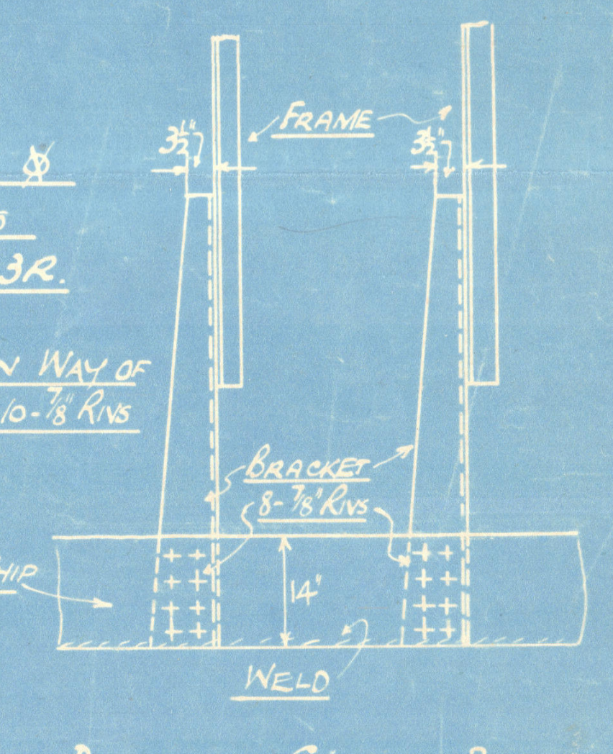
"K" OUT & IN
77½" x ·73" FOR ½L ⊗
TO ·46" AT ENDS. BUTTS LAPPED & 4R
FOR ½L ⊗ TO 3R AT ENDS.

"J" IN
83¼" x ·65" FOR ½L ⊗
TO ·46" AT ENDS
BUTTS LAPPED & 3R

"H" OUT
83¼" x ·65" FOR ½L ⊗
TO ·45" AT ENDS
BUTTS LAPPED & 3R.

"G" IN
83¼" x ·60" FOR ½L ⊗
TO ·45" AT ENDS.
BUTTS LAPPED & 3R.

"F" OUT.
83¼" x ·60" FOR ½L ⊗
TO ·45" AT ENDS
BUTTS LAPPED & 3R.



3½"
FRAME
BRACKET
8-7/8" RIVS
14"
WELD

GUSSET PLATE IN WAY OF PANTING 17" WITH 10-7/8" RIVS
DRAIN HOLES ARRANGED AT SHIP

DETAIL OF GUSSET PLATE.

"E" IN
77½" x ·64" FOR ½L ⊗
TO ·50" AT ENDS
INSIDE STRAPS 4R.

MARGIN PLATE 36" x ·54. ·60" IN B.S
BUTTS LAPPED & 3R THROUGHOUT.
MARGIN ANGLE 3½" x 3½" x ·54" TO SHELL
" LUGS TO FRAME BRACKETS & FLOOR ENDS 6" x 6" x ·44 SINGLE WITH 12-7/8" RIVS

FURNESS SHIPBUILDING COMPANY
Issue No 29654
Ship Drawing Office
Date 25·6·42
HAVERTON HILL-ON-TEES

T. No 4658

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